Job Title: Building Science Laboratory Technician (2 Year Term)

Date Posted: 07/12/2022
Req ID: 25847
Faculty/Division: Faculty of Applied Science & Engineering
Department: Department of Civil and Mineral Engineering
Campus: St. George (Downtown Toronto)
Position Number: 00052017

About us:

The University of Toronto’s Department of Civil & Mineral Engineering offers a dynamic compendium of research and academic programs with a mandate that spans a wide range of applications in professional practice, encompassing the built environment and its infrastructure, transportation engineering and planning, structural engineering, environmental engineering, mining and geomechanics. Our department seeks to uphold and strengthen its position as a preeminent leader in education and research, and to continue to develop sustainable solutions for the global community across the spectrum from mineral engineering to urban infrastructure. The Department hosts 900 students in undergraduate and graduate research/professional degree programs. Our facilities total 8,000+ square meters of combined research / teaching / computational labs, offices, classrooms, and common-use / support spaces.

The Building Science Group focuses its research on improving building performance (energy, indoor air, comfort, controls), their systems and components and on human-building interactions.

Your opportunity:

This new position provides primary research and teaching support for the Building Science Group, consisting of four faculty researchers and their Postdoctoral Fellow/graduate/undergraduate student teams. Support will be provided for active research projects in the lab and in the field, as well as for the development, execution, and maintenance of building science graduate and undergraduate course laboratory experiences. The supported lab, field and course work will involve working with a wide variety of instrumentation used to evaluate building performance by examining how building enclosures, mechanical systems and controls influence the indoor environment.

Under the supervision of the Director, Technical Services and direct instruction from / consultation with the Building Science Group, the incumbent is responsible for:

- Configuring, calibrating, using, developing protocols/procedures for, and managing laboratory and field work equipment, sensors and data acquisition devices for teaching and research; and,
- Operating building science teaching and research facilities, including but not limited to:
  - General lab management (organization, cleanliness, safety, and general orientation for new students)
  - HVAC and research equipment operations, controls, measurement, testing, commissioning/recommissioning;
  - Updating and ensuring compliance with safety, data collection and data management protocols;
  - Equipment/consumables procurement, labeling, database management, annual inventory, lending practices for coursework;
  - Organizing logistics/transportation/accommodations for site visits;
  - Coordinating vendor/factory calibration/repairs/maintenance as needed;
  - Maintaining laboratory/facility integrated systems (compressed gas/air, water distillation, fume hoods, etc.)

Your responsibilities will include:

- Constructing proof of concept experiments to test different elements of the process
- Collecting experimental data, verifying results and passing on findings
- Scheduling the use of lab equipment and resources
- Liaising with service provider to resolve issues with malfunctioning equipment
- Troubleshooting routine equipment repairs
Collaborating with staff and course instructors to determine lab set up requirements
Maintaining equipment and supply inventory
Ordering supplies with approval

**Essential Qualifications:**

- Bachelor's Degree in engineering or technical program or acceptable combination of equivalent experience.
- Minimum two years of work experience including a combination of management of lab or building systems, and; sensor calibration, deployment, data acquisition, and; supporting teaching(e.g. management of equipment, demonstrations etc.).
- Demonstrated commitment to equity, diversity, inclusion and the promotion of a respectful and collegial work environment.
- Knowledge of occupational hazards and safety precautions associated with manual and powered /energized resources.
- Excellent customer service and communication skills (verbal and written), and ability to communicate effectively with diverse groups, including students, faculty, staff.

**Assets (Nonessential):**

- Basic knowledge of HVAC operation, controls and measurement, experience testing and recommissioning HVAC systems and experience with any building management system (e.g., Metasys, Niagara, etc.), including both hardware & software.
- Updating and ensuring compliance with safety, data collection and data management protocols.
- Equipment/consumables procurement, labeling, database management, annual inventory, lending practices for course work.
- Organize transportation/accommodation for site visits and general support for field work.
- Coordinating factory calibration/repairs/maintenance as needed.
- Coding and data visualization (Python, R, Stata, and/or MATLAB).

**To be successful in this role you will be:**

- Adaptable
- Motivated self-learner
- Multi-tasker
- Organized
- Problem solver
- Resourceful

A copy of the job description is available upon request, please email hr.engineering@utoronto.ca.

**Closing Date:** 07/21/2022, 11:59PM ET

**Employee Group:** USW

**Appointment Type:** Grant - Term

**Schedule:** Full-Time

**Pay Scale Group & Hiring Zone:**
USW Pay Band 09 -- $60,006 with an annual step progression to a maximum of $76,739. Pay scale and job class assignment is subject to determination pursuant to the Job Evaluation/Pay Equity Maintenance Protocol.

**Job Category:** Engineering / Technical

**Recruiter:** Tamsyn Boshoff

**Lived Experience Statement**
Candidates who are members of Indigenous, Black, racialized and 2SLGBTQ+ communities, persons with disabilities, and other equity deserving groups are encouraged to apply, and their lived experience shall be taken into consideration as applicable to the posted position.